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DEPARTMENT
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QUARTERLY BULLETIN

GAS
~~INSPECTION~~ Protection
BRANCH

JANUARY - 1963

GOVERNMENT OF THE
PROVINCE OF ALBERTA

TEMPORARY HEAT FOR BUILDINGS UNDER CONSTRUCTION, ALTERATION OR REPAIR.

Supplying heat to buildings under construction, alteration or repair often creates a problem if the period during which heat is required is so short as to make the installation of extensive piping and venting systems impracticable. In order to avoid the installation of standard heating equipment, such as duct furnaces or unit heaters, many makeshift methods have been used, some of which have created fire hazards and hazards to the men working in these areas. One method of heating buildings, particularly those under construction, is to use heaters which vent the products of combustion directly into the space being heated. The use of such heaters, which have no provision for venting the flue products to the outside, can be extremely dangerous unless certain precautions are observed during their installation. The possibility of such a situation occurring is increased when buildings under construction are fully enclosed by polyethylene film with little or no air infiltration. It is necessary to ensure that there is adequate ventilation of enclosed areas in order to have a continual fresh air supply into the space being heated and movement of products of combustion out of the area. While construction heaters are designed to produce no carbon-monoxide, this will only remain so as long as there is sufficient combustion air to effect complete combustion. If an unvented heater is operated in a confined space, there will be a gradual build-up of carbon-monoxide in the flue products which can create headaches, dizziness, nausea and can even be fatal. Many instances have occurred where workmen have suffered from these complaints and it is often not realized that the heating equipment has been responsible.

Approved propane fired construction heaters of the unvented type are available which have been certified by a nationally recognized testing laboratory to comply with safe standards of construction and operation. These unattended heaters are available in the motorized and non-motorized types. Clearance between the motorized type of heater and combustible materials should be not less than 6" and they should not be used where the floor to ceiling height is less than 5'. Clearance of the non-motorized heaters from combustible materials should be not less than 2' and the floor to ceiling height not less than 7'. These approved heaters are equipped with automatic devices which provide 100% shut-off in the event of pilot outage and are also equipped with approved hose.

The B.149-1962 Installation Code for Gas Burning Appliances and Equipment makes provision for locating propane cylinders inside buildings where temporary heat is required from portable heating equipment. The aggregate capacity of the cylinders connected to each portable manifold is not to exceed 300 pounds of gas by weight and not more than one such manifold with cylinders may be located in the same room unless separated by at least 50'. A pressure regulator must be directly connected to the cylinder

valve which will limit the gas pressure to that which is recommended for best operation by the manufacturer. Manifolds and fittings connecting cylinders to the pressure regulator should be designed for a minimum of 500 p.s.i.g. Cylinders should be secured in a vertical position and located where they will not be subjected to excessive rise in temperature or physical damage, and should be not less than 7' from the heating unit except where the cylinder and heater are designed as an integral unit and so certified. Cylinders are only permitted to be located inside of a building during the time when the heating equipment is in operation and during other times must be stored outside. If portable heating equipment is to be operated for an extended period of time or if the heating equipment is not required to be portable, storage containers must be located outside. Temporary permits are required for all installations of temporary heating equipment and are valid for a period of ninety days, and thereafter renewable for a further period of ninety days.

CLEARANCE OF SEA LEVEL APPROVED APPLIANCES ON HAND AT DISTRIBUTORS AS OF MAY 1ST, 1962.

When the Regulation, requiring that central heating appliances, water heaters, room heaters and unit heaters under 400,000 B.T.U. input bear approval for high altitude operation, came into effect on May 1st, 1962, this Branch undertook to issue clearance tags for all sea level equipment which was on hand in distributors' stocks on that date. These tags indicated that the equipment would be acceptable if derated 10%, and this Branch endeavoured to issue these tags without delay in order to create a minimum of inconvenience to distributors who found it necessary to continue selling this stock. This project was a greater task than was anticipated due to the large stocks held by many of the distributors, who continued to order appliances approved only for sea level operation in spite of being notified some ten months in advance of the date when the new Regulation would become effective. As a result it took considerable time to complete the issuance of several thousands of tags. Distributors who did not promptly submit inventories as requested did not receive clearance tags until many of the appliances had been installed in the field. This caused considerable inconvenience to the gasfitters, the distributors and ourselves in determining if the gas appliances were eligible for clearance tags. All tags have now been issued for equipment eligible to bear them and, with the supply limited to high altitude approved equipment, it is expected that the numerous complaints in the past of overfiring, spillage and inaccurate operation of high limit controls will be eliminated. To date there have been only a few reports of high altitude approved equipment not functioning satisfactorily in the field, due generally to factory errors during production. It is expected that only minor operational problems will be encountered with equipment tested in accordance with the simulated high altitude test requirement, and

it is not considered at the present time that any major revisions of this test requirement will be necessary.

GAS-FIRED INCINERATORS.

The use of gas-fired incinerators for incineration of domestic and commercial wastes is becoming increasingly popular and, as only domestic incinerators with capacities up to 4 bushels can be approved by nationally recognized testing laboratories due to the limited scope of authorized testing requirements, it has been necessary for the Gas Protection Branch to test and approve incinerators of greater capacities. Application must be made to the Gas Protection Branch for approval of incinerators which do not bear approval from one of the nationally recognized testing laboratories. Approval tests are conducted in the Gas Protection Branch Laboratory or in the field where large capacity gas-fired incinerators are constructed on the site.

The satisfactory operation of incinerators is dependent to a great extent on the venting and in order to ensure safe operation, the applicable sections of the B.149 Code must be adhered to.

Draft hoods are prohibited by the Code for use with incinerators. However, in order to obtain maximum performance from incinerators, manufacturers often supply a barometric damper to control the draft and also lower vent temperatures by permitting the induction of dilution air into the vent. All barometric dampers installed in the venting system of incinerators should be of the single acting type as double acting barometric dampers would create the same smoke and fly ash hazard as a draft hood. Only domestic incinerators having a capacity not exceeding 1.5 bushels may be vented into unlined concrete block chimneys. Incinerators of larger capacities are to be vented to approved factory built chimneys or field constructed masonry chimneys. The vent connector is to be a direct connection to the chimney through a separate thimble.

NEW ADDRESS OF PEACE RIVER DISTRICT OFFICE.

New office space has been obtained for the District Office in Peace River. All correspondence should now be addressed to:

District Gas Inspector,
Gas Protection Branch,
North Peace Shopping Centre,
Box 985,
Peace River, Alberta.

OCTOBER QUARTERLY BULLETIN.

Due to an exceptionally busy Fall it was not possible to publish a Quarterly Bulletin for October. We will endeavour to have all future Bulletins published at each Quarter.